



## Early Journal Content on JSTOR, Free to Anyone in the World

This article is one of nearly 500,000 scholarly works digitized and made freely available to everyone in the world by JSTOR.

Known as the Early Journal Content, this set of works include research articles, news, letters, and other writings published in more than 200 of the oldest leading academic journals. The works date from the mid-seventeenth to the early twentieth centuries.

We encourage people to read and share the Early Journal Content openly and to tell others that this resource exists. People may post this content online or redistribute in any way for non-commercial purposes.

Read more about Early Journal Content at <http://about.jstor.org/participate-jstor/individuals/early-journal-content>.

JSTOR is a digital library of academic journals, books, and primary source objects. JSTOR helps people discover, use, and build upon a wide range of content through a powerful research and teaching platform, and preserves this content for future generations. JSTOR is part of ITHAKA, a not-for-profit organization that also includes Ithaka S+R and Portico. For more information about JSTOR, please contact [support@jstor.org](mailto:support@jstor.org).

The following resolutions, adopted at a meeting of the Zoological Committee, were presented by the Chairman of the Committee :

*Resolved*, That in incorporating the Ornithological collection of the Academy with that of Dr. Wilson, the Zoological Committee will withdraw from exhibition such specimens, the property of the Academy, as shall be found duplicates in the joint collection.

*Resolved*, That the duplicates be deposited in the north-east basement room.

The resolutions were, on motion, approved.

---

*Stated Meeting, Dec. 15, 1846.*

MR. VAUX in the Chair.

DONATIONS TO MUSEUM.

A number of fine fossils, from the Silurian rocks of Columbia Co., Pennsylvania. Presented by Mr. H. S. Stephens.

Prof. Johnson presented from Miss Morris, of Germantown, numerous specimens of *Cicada septemdecim*, some of them in the living state. They had been recently found in that vicinity, firmly attached by the proboscis to the roots of fruit trees which had been gradually decaying for several years.

DONATIONS TO LIBRARY.

Fourth Bulletin of the National Institute. Feb. 1845 to Nov. 1846. Washington, D. C., 1846. From the Institute.

The following very valuable works were deposited by Dr. Thomas B. Wilson :

*Fauna Japonica* ; auctore Ph. Fr. von Siebold. 18 fasciculi. Aves, Mammalia, Pisces. Elaborantibus C. J. Temminck, et N. H. Schlegel. Folio.

*Verhandelingen over de Natuurlijke Geschiedenis der Ne-*

derlandsche overzeesche Bezittengen door de leden der Natuurkundige commissie in Oost-Indië en Andere Schrijvers. Zoologie. 12 Nos. Folio.

Systematische Uebersicht der Vögel Nord-Ost Afrikas. Von Dr. Ed. Rüppell. 1 vol. 8vo. Frankfort Am. Main. 1845.

Neue Wirbelthiere zu der Fauna von Abyssinien gehörig entdeckt und beschrieben von Dr. Ed. Rüppell. 1 vol. 4to. Frankfort Am. Main, 1835-40.

The Genera of Birds. By Geo. Robert Gray, F. L. S. Illustrated with about 350 plates, by David Wm. Mitchell, B. A. F. L. S., &c. 28 parts, 4to.

Iconographie Ornithologique. Nouveau recueil général de planches peintes d'Oiseaux: par O. des Murs. 3 Livs. 4to.

The Viviparous Quadrupeds of North America. By John James Audubon, and the Rev. John Bachman, D. D. Ninety-three plates. Elephant folio.

---

Dr. Leidy read a paper "On the situation of the olfactory sense in the terrestrial tribe of the gasteropodous mollusca," which was referred to Mr. Phillips, Mr. Haldeman, and Dr. Morton.

A letter was read from Dr. Zina Pitcher, dated Detroit, Michigan, Dec. 3, 1846, transmitting a Catalogue of Birds in the University of Michigan, and soliciting exchanges in several departments of Natural History.

---

The following remarks by Miss Morris, communicated through Professor Johnson, fully explain the circumstances which led to, and accompanied the discovery of the larvæ of *Cicada septendecim* preying on the roots of fruit trees:

I have, for a number of years, believed that the failure of fruit on trees over twenty years old, was mainly owing to the ravages of the larvæ of the *Cicada septendecim*, though Entomologists have heretofore considered them harmless, or nearly so, believing that the principal injury caused by them was received on the branches of the trees when depositing their eggs. But from the fact of their burrowing into the earth the moment of their escape

from the eggs, and their living, as all acknowledge, on the sap of the roots of plants, I was led to think that the constant drain of sap required to nourish so many thousands of grubs, of from a quarter of an inch to an inch in length, must be more than a tree could live through, and yield good fruit. I was confirmed in this opinion by an experiment made by J. B. W., New York, and published in the November number of the *Horticulturist*, page 227. The method prescribed to renovate an outcast, is to dig a trench four feet wide and twenty inches deep, around the tree, leaving a ball of earth six feet in diameter, and then to fill the trench with rich earth and compost. The author states that the experiment succeeded, and that in three years the tree was in a flourishing condition, and yielded fine fruit. The writer attributes the change to the new and rich soil with which he supplied the tree. I argue, that on cutting off the larvæ of the *Cicada*, which he did when he cut off so large a portion of the roots, he removed the real disease, and the tree was then in a condition to take advantage of the congenial soil placed around it; and new life was given to roots and branches.

Under this impression, I superintended a similar experiment on a pear tree that had been declining for years, without any apparent cause, and agreeably to my expectations, I found the larvæ of the *Cicada* in countless numbers clinging to the roots of the tree, with their suckers piercing the bark, and so deep and firmly placed, that they remained hanging for half an hour after being removed from the earth. From a root a yard long, and about an inch in diameter, I gathered twenty-three larvæ; they were of various sizes, from a quarter of an inch to an inch in length. They were on all the roots that grew deeper than six inches below the surface. The roots were unhealthy, and bore the appearance of external injury from small punctures. On removing the outer coat of bark, this appearance increased, leaving no doubt as to the cause of the disease.

The larvæ were enclosed in a compact cell of earth, with no outlet except that in immediate contact with the root, and as there were no galleries or holes leading from these cells, I infer that the grubs never leave the roots they first fasten on; which may account for the great difference of size; the small ones being starved specimens of the same brood: though I am inclined to believe that there are two species, differing sufficiently in size to account for the discrepancy in the size of the larvæ now found. I noticed this difference in 1817, and again in 1834: the note of the smaller variety, or species, is much shriller than that of the larger, and will never be mistaken when noticed.

The Cicado is too well known to need a description here; I will therefore only notice its habits as they have fallen under my own observation, and make a few extracts from an article published in

the National Gazette, and written by my brother, Mr. Thomas W. Morris, in 1834.

The eggs require forty-two days to mature in the branches of the trees; they then burst the shell and appear, a minute but active fac simile of the parent in the larvæ state, except the absence of the wing cases; they require but a few moments to stretch their limbs and prepare for labor, before they unloose their hold on the twigs on which they had been deposited, and fall to the ground, where they immediately disappear in search of food in the roots of the tree. If the eggs that are about to hatch be placed over a glass jar filled with earth, the young grubs will in a few hours after their escape from the eggs, be seen at the bottom of the jar endeavoring to force their way still deeper—when first hatched they are quite white, but soon change to yellowish brown. They exist in separate tribes, occupying different sections of country; making their appearance in different years, but invariably after the same interval of time. For a year or two before the arrival of the main body, a few scattered individuals are generally found.

Mr. Morris thus describes them, as noticed by him at various times and places:—

“In November, 1812, I found a large number of locust grubs under an old apple tree, between two and three feet below the surface, having every appearance of such as now issue from the ground, and nearly of the same size. On the 27th of June, 1815, I saw a portion of one of their countless tribes west of the Alleghany mountains, extending from the summit of the Chestnut ridge into the State of Ohio, beyond Steubenville; occupying every shrub and tree except the pines, and the walnut, hickory, and some of the same family. On my return in the latter end of the following month, not an individual of the myriads which had occupied that space was to be seen; the tops of the forests for upwards of a hundred miles appeared as if scorched by fire. In 1832, just seventeen years after, I noticed a newspaper paragraph, which stated that the locust had appeared in that neighborhood in large numbers.

The northern parts of Pennsylvania and New Jersey were visited by them in 1826, when I had another opportunity of seeing this extraordinary insect. On my way from Easton, through New Jersey to Milford in Pike county, Pennsylvania, I fell in with a very numerous body; how far they extended, I was unable to learn, but they did not disappear from my route until after passing through a large part of Pike county, a distance by the road, of more than sixty miles from the place where I saw them on the 23d of May. Trees and shrubs are necessary as places of deposit for their eggs; consequently, though numerous in the State House Square, none were to be found in Washington Square, which in 1817 was destitute of trees.”